

**TABLE 1-2
HISTORICAL SUMMARY OF RAW MATERIALS AND WASTE AT SAEP**

**REMEDIAL INVESTIGATION REPORT
STRATFORD ARMY ENGINE PLANT
STRATFORD, CONNECTICUT**

Process	Chemical Type	Use	Entrance to SAEP Waste Stream	Waste Code⁽¹⁾	Fate Code⁽²⁾
Machining	Water soluble oil	Cutting oil/coolant	Vacuum cart to recycling unit	CR03	R, T
Machining	Dye	Penetrant	Formerly to OATP Currently recycled on site through GAC	None M099	T D
Machining	Hydraulic fluid	Transfer energy	Container to waste oil tank	CR02	B
Machining	Oil	Lubricant	Container to waste oil tank	CR02	B
ECM	Brine	Electrolyte	Formerly to OATP; Process not used since 1987	None	T
Electro-plating	Hydroxides, Rochelle salts, copper cyanide, and sodium cyanide	Copper plating bath	Wastewater to cyanide destruction, then to CWTP	None	T
Electro-plating	Chromic and sulfuric acids	Chrome plating bath	Wastewater to CWTP	None	T
Electro-plating	Nickel sulfamate	Nickel plating bath	Wastewater to CWTP	None	T
Electro-plating	Nickel chloride and hydrochloric acid	Nickel striking bath	Wastewater to CWTP	None	T
Electro-plating	Cadmium cyanide	Cadmium plating bath	Wastewater to CWTP Process no longer used	None	T
Corrosion Resistance	Chromic acid	Anodize or chemically coat aluminum	Wastewater to CWTP	None	T
Corrosion Resistance	Sodium dichromate and magnesium fluoride	Dichromate finish on magnesium	Wastewater to CWTP	None	T

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Corrosion Resistance	Proprietary	HAE anodic finish on magnesium	Wastewater to CWTP	None	T
Corrosion Resistance	Sodium hydroxide and sodium nitrate	Black oxidation	Wastewater to CWTP	None	T
Corrosion Resistance	Phosphoric acid and zinc or magnesium phosphate	Phosphate finish	Wastewater to CWTP	None	T
Cleaning	Nitric acid	Passivation of hardened steel	Wastewater to CWTP	None	T
Cleaning	Epoxides, enamels, silicones, thinners, zinc chromate primers	Painting	Container to hazardous waste storage	D001	I/B
Cleaning	Oil	Oil slush	Vacuum cart to waste oil tank	CR02	I/B
Cleaning	Aluminum and magnesium	Plasma spray	Overspray to container to solid waste	None	D
Cleaning	Chlorinated solvent	Vapor degreasing Spray and wipe degreasing	Vacuum cart to degreasing solvent tank	F001	G/D
Cleaning	Solvent	Paint removal	Container to hazardous waste storage	F003	I/B
Cleaning	Solvent	Touch and wipe cleaning	Container to hazardous waste storage	F005	I/B
Cleaning	Freon	Flux removal and touch-up cleaning	None	None	None

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Cleaning	Detergents	Emulsion cleaning of soils/grease/oil	Vacuum cart to waste oil tank for oil/water separation: <input type="checkbox"/> Wastewater to OATP <input type="checkbox"/> Oil to waste oil storage	None CR02	T B
Cleaning	Potassium or sodium hydroxide	Alkaline degreasing	Wastewater to CWTP	None	T
Cleaning	Sodium hydroxide	Anodic cleaning	Wastewater to CWTP	None	T
Cleaning	Hydroxides and sodium cyanide	Periodic reverse cleaning	Wastewater to cyanide destruction, then to CWTP	None	T
Cleaning	Hydrofluoric acid, hydrochloric acid, nitric acid, chromic acid, sulfuric acid	Acid cleaning and pickling	Wastewater to CWTP	None	T
Cleaning	Hydrochloric acid, nitric acid, and hydrated ferric chloride	Etching	Wastewater to CWTP	None	T
Cleaning	Sulfuric acid and hydrofluoric acid	Etching	Wastewater to CWTP	None	T
Cleaning	Grit and glass beads	Abrasive blasting	Container to nonhazardous solid waste	None	D
Cleaning	Abrasives	Abrasive slurry	Container to nonhazardous solid waste	None	D
Miscellaneous Other	Organic compounds	Electrofilming	Container to hazardous waste storage	D001	I
Miscellaneous Other	Wax, lacquer, plastic	Masking	Container to hazardous waste storage	None	D
Miscellaneous	Glass beads	Peening	Container to hazardous waste storage	None	D

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Other					
Miscellaneous Other	None	Heat treatment	None	None	None

Source: Final EBS Report (ABB-ES, 1996).

Notes:

CWTP = Chemical Waste Treatment Plant

GAC = Granual Activated Carbon

OATP = Oil Abatement Treatment Plant

⁽¹⁾

CR02 - Waste oil.

CR03 - Water soluble waste oil.

M099 - Massachusetts regulated.

F001 - Spent halogenated degreasing solvents. Federally regulated. 40CFR261.31.

F003 - Spent nonhalogenated solvents. Federally regulated. 40CFR261.31.

F005 - Spent nonhalogenated solvents. Federally regulated. 40CFR261.31.

D001 - Ignitable waste. Federally regulated. 40CFR261.21.

⁽²⁾

R Recycled/reclaimed and put back into the original process or a different. The rendering/reclaiming is performed external to the generating industrial process but on/by the installation. In-process recycling as defined by EPA should not be included as in-process recycling that directly reduces source generations since the recycled wastestream never leaves the process. Example: degreasing solvents distilled and reused back in the degreasing operation. Note: any distilling bottom sludges must be reported as HW generation.

G Recycled/reclaimed/sold to an off-post contractor or organization, not through DRMO, and a like product not returned to the installation. Example: redwater given/sold to a paper mill directly by the installation.

T Treated at an industrial treatment plant or pretreatment plant where the treatment-resultant wastestream is discharged to the environment via NPDES permit or to the sanitary sewer system. A HW product may also be produced as part of the treatment process.

I Incinerated or thermally treated. Example: OB/OD, thermally-treated granular activated carbon for pinkwater and treated activated carbon disposed (if activated carbon is reused, then use a fate code "R" or "O").

B Burned as a fuel supplement. A form of reuse but indicated as a separate category. Example: used oil and/or solvent used as fuel supplement.

D Disposal. Ultimate disposal off site, not through DRMO.

Prepared by: RTB

Checked by: DRP

The fate of all materials cannot be accounted for, as accurate records were not maintained at SAEP regarding quantities of raw chemicals entering the process and exiting through the waste stream.